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| 09/622,137 | 08/11/2000 | Michel Maillard | 11345.023001 | 8272 |
| 22511 | 7590 | 12/06/2005 | EXAMINER | |
| OSHA LIANG L.L.P. 1221 MCKINNEY STREET SUITE 2800 HOUSTON, TX 77010 | | | HOFFMAN, BRANDON S | |
| | | | ART UNIT | PAPER NUMBER |
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DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/622,137

Applicant(s)

MAILLARD ET AL.

Examiner

Brandon S. Hoffman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-20 and 30-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-20 and 30-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. Claims 4-20, and 30-35 are pending in this office action.
2. Applicant's arguments, filed September 30, 2005, have been considered and are persuasive. However, a new ground of rejection has been made.

Rejections

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

4. Claims 4-8, 14-16, 30-32, 34, and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamperman (U.S. Patent No. 5,991,400).

Regarding claim 30, Kamperman teaches a method of recording transmitted digital data, comprising:

- Encrypting transmitted digital information of the transmitted digital data by a recording encryption key (col. 4, lines 49-54), **wherein the transmitted digital information comprises a control word** (col. 4, lines 36-43);
- Storing the encrypted transmitted digital information by a recording means on a recording support medium (col. 5, lines 53-64);

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- Encrypting the recording encryption key by a recording transport key (col. 6, lines 48-61); and
- Storing the **encrypted** recording encryption key to the **recording** support medium (col. 6, lines 54-57), wherein at least one of the **recording** encryption key and recording transport key is stored on a portable security module associated with the recording means (fig. 1, SCD, col. 5, lines 47-50 and col. 6, lines 38-41).

Regarding claim 31, Kamperman teaches a system for recording transmitted digital data, comprising:

- A receiver/decoder for at least receiving the encrypted transmitted digital data (fig. 1, RE), **wherein the encrypted transmitted digital data comprises a control word** (col. 4, lines 36-43), **and wherein the transmitted digital data is encrypted using a recording encryption key** (col. 4, lines 49-54); and
- A recording means for recording the encrypted transmitted digital data to a recording support medium, along with **an encrypted** recording encryption key (fig. 1, VTR),
 - Wherein the recording encryption key is encrypted via a recording transport key **to obtain the encrypted recorded encryption key** (col. 6, lines 48-61).

Regarding claim 34, Kamperman teaches a system for recording transmitted digital data, comprising:

- A recording support medium configured to store the encrypted transmitted digital data and an **encrypted** recording encryption key (fig. 1, VTR, col. 5, lines 53-64 and col. 6, lines 54-57), **wherein the encrypted transmitted digital data comprises a control word** (col. 4, lines 36-43), **wherein the transmitted digital data is encrypted using a recording encryption key** (col. 4, lines 49-54), **and** wherein the **encrypted** recording encryption key is encrypted using a recording transport key (col. 6, lines 48-61); and
- A portable security module configured to store at least one of the recording encryption key and the recording transport key (fig. 1, SCD, col. 5, lines 47-50 and col. 6, lines 38-41).

Regarding claim 35, Kamperman teaches a recording support medium, comprising:

- Transmitted digital data, wherein the transmitted digital data is encrypted using a recording encryption key (col. 4, lines 49-54), **and wherein the transmitted digital data comprises a control word** (col. 4, lines 36-43); and
- An **encrypted** recording encryption key, wherein the **encrypted** recording encryption key is encrypted using a recording transport key (col. 6, lines 48-61).

Regarding claim 4, Kamperman teaches the transmitted information is encrypted prior to transmission and received by a decoder means before being communicated to the recording means (fig. 1, TE, SCR and RE, DSC).

Regarding claim 5, Kamperman teaches the decoder is associated with a portable security module used to store transmission access control keys (KO (NS), KO' (Op1, NS) etc.) used to decrypt the transmitted encrypted information (col. 5, lines 19-31).

Regarding claim 6, Kamperman teaches at least one of the recording encryption key (E (NE)) and/or recording transport key (RT (A)) function in accordance with a first encryption algorithm (DES) and the transmission access control keys (KO (NS), KO' (Op1, NS) etc.) function in accordance with a second encryption algorithm (CA) (fig. 2A, the KRD is created differently than the AK).

Regarding claim 7, Kamperman teaches the recording transport key (RT (A)) is generated at a central recording authorization unit and a copy of this key communicated to the recording means (col. 6, lines 10-20).

Regarding claim 8, Kamperman teaches the recording transport key (RT (A)) is encrypted by a further encryption key (KO (NSIM)) prior to being communicated to the recording means (col. 6, lines 48-57).

Regarding claim 14, Kamperman teaches:

- Using a decoder means and associated security module and a recording means and associated security module (fig. 1, VTR, SCD, RE) and
- In which a copy of the recording transport key (RT (A)) is stored in at least one of the security module associated with the decoder means and/or the security module associated with the recording means (col. 6, lines 54-57).

Regarding claim 15, Kamperman teaches the recording transport key (RT (A)) is generated by either the recording security modules or decoder security module and communicated to the other security module (fig. 1, SCD sends the KRD to the VTR).

Regarding claim 16, Kamperman teaches the recording transport key (RT (A)) is encrypted before communication to the other security module and decrypted by a key unique (KO (NS)) to that other security module (col. 6, lines 48-65).

Regarding claim 32, Kamperman teaches further comprising a decoder means and associated security module adapted to store a copy of the recording transport key (RT(A)) (fig. 1, VTR, SCD, RE).

Claim Rejections - 35 USC § 103

5. Claims 9-13 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamperman (USPN '400) in view of Bednarek et al. (U.S. Patent No. 5,621,793).

Regarding claim 9, Kamperman teaches all of the subject matter of claim 1, as discussed above. However, Kamperman does not disclose a central access control system communicates transmission access control keys (KO (NS), KO' (Op 1, NS) etc.) to the recording means.

Bednarek et al. teaches a central access control system communicates transmission access control keys (KO (NS), KO' (Op 1, NS) etc.) to the recording means (col. 8, line 61 through col. 9, line 13).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine a central access control system communicates keys to the recording means, as taught by Bednarek et al., to the method of Kamperman. It would have been obvious for such modifications because the central access provides the keys needed for descrambling; this prevents tampering with the set-top box because the keys are not stored therein.

Regarding claim 10, Kamperman as modified by Bednarek et al. teaches the transmission access control keys (KO (NS), KO' (Op1, NS) etc.) are communicated to a portable security module associated with the recording means (see col. 13, lines 31-51 of Bednarek et al.).

Regarding claims 11 and 33, Kamperman as modified by Bednarek et al. teaches the recording means directly descrambles transmitted information using the transmission access keys (KO (NS), KO' (Op1, NS) etc.) prior to re-encryption of the information by the recording encryption key (E (NE)) and storage on the support medium (see fig. 2, ref. num 46 of Bednarek et al.).

Regarding claim 12, Kamperman as modified by Bednarek et al. teaches central access control system encrypts the broadcast access control keys (KO (NS), KO' (Op1, NS) etc.) by a further encryption key (KO (NSIM)) prior to their communication to the recording means (see col. 6, lines 28-60 of Bednarek et al.).

Regarding claim 13, Kamperman as modified by Bednarek et al. teaches the recording means sends a request to the central access control system including information identifying the broadcast access keys needed (KO (NS), KO' (Op1, NS) etc.), the request being authenticated by the recording means using a key (KO (NSIM)) unique to that recording means (see col. 5, lines 19-34 of Bednarek et al.).

Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamperman (USPN '400) in view of Park (European Patent No. 714204).

Regarding claim 17, Kamperman teaches all of the subject matter of claims 1 and 14-16, as discussed above. However, Kamperman does not disclose the decoder

security module and recording security module (52) carry out a mutual authorization process, the unique decryption key (KO (NS)) being passed to the other security module from the encrypting security module depending on the results of the mutual authorization.

Park teaches the decoder security module and recording security module (52) carry out a mutual authorization process, the unique decryption key (KO (NS)) being passed to the other security module from the encrypting security module depending on the results of the mutual authorization (page 8, lines 43-45).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine mutual authorization between the security module and recording module, as taught by Park, to the method of Kamperman. It would have been obvious for such modifications because mutual authorization ensures integrity between the two devices.

Regarding claim 18, Kamperman as modified by Park teaches the mutual authorization step is carried out using, inter alia, an audience key KI (C) known to both security modules (30,52) (see page 8, lines 39-42 of Park).

Regarding claim 19, Kamperman teaches all of the subject matter of claims 1 and 14, as discussed above. However, Kamperman does not disclose the decoder

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security module possesses transmission access control keys (KO (NS), KO' (Op1, NS) etc.) to decrypt the transmitted information in an encrypted form and a session key (K3 (NSIM)) to re-encrypt the information prior to communication to the recording security module, the recording security module possessing an equivalent of the session key (K3 (NSIM)) to decrypt the information prior to encryption by the recording transport key (RT (A)).

Park teaches:

- The decoder security module possesses transmission access control keys (KO (NS), KO' (Op1, NS) etc.) to decrypt the transmitted information in an encrypted form (page 8, lines 10-19) and
- A session key (K3 (NSIM)) to re-encrypt the information prior to communication to the recording security module, the recording security module possessing an equivalent of the session key (K3 (NSIM)) to decrypt the information prior to encryption by the recording transport key (RT (A)) (page 8, lines 20-22).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the decoder security module possessing transmission access control keys to decrypt the transmitted information in an encrypted form and a session key to re-encrypt the information prior to communication to the recording security module, the recording security module possessing an equivalent of the session key to decrypt the information prior to encryption by the recording transport key, as

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taught by Park, to the method of Kamperman. It would have been obvious for such modifications because the decoder security module possessing transmission access control keys to decrypt the transmitted information in an encrypted form would allow the security module to properly decrypt the encrypted data for proper restoration of the signal. Also, a session key to re-encrypt the information prior to communication to the recording security module, the recording security module possessing an equivalent of the session key to decrypt the information prior to encryption by the recording transport key would secure the clear signal again before transmission to the recording device, thus making the secure digital recording device more secure.

Regarding claim 20, Kamperman as modified by Park teaches the session key (K3 (NSIM)) is generated by one of the decoder security module or recording means security module and communicated to the other module in encrypted form using an encryption key (KO (NS)) uniquely decryptable by the other security module (see page 8, lines 20-22 of Park).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon S. Hoffman whose telephone number is 571-272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Branda Hef

BH

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12/1/05*